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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,224	02/01/2001	Paul E. Nikolich	100.166US01	9058

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EXAMINER

LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/775,224

Applicant(s)

NIKOLICH, PAUL E.

Examiner

Hunter B. Lonsberry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/29/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Arguments***

Applicant's arguments, see Response, filed 12/29/2003, with respect to the rejection(s) of claim(s) 1-31 under 35 USC 102/103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nazarathy.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,574,797 to Naegeli in view of U.S. Patent 6,490,727 to Nazarathy.

Regarding claims 1 and 3-6, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal, narrow bandwidth detector 208 examines the signal for noise and then transmits downstream a control command to the cable modem to switch to an alternate upstream channel if the noise level exceeds a certain threshold (column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, column 10, line 35-column 12, line 10).

Naegeli does not teach a modem situated within a fibre node.

Nazarathy discloses in Figure 20, a Fibre node 452-1 in which modems 456-1 are situated within an HFC network (column 35, line 35-column 36, line 30).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the monitoring and switching apparatus of Naegeli to situate a modem within the fibre node, as taught by Nazarathy thus enabling the end user to utilize a less noisy channel.

Regarding claim 2, Naegeli discloses the use of DOCSIS (column 12, line 64-column 13, line 1).

Regarding claims 7, 11, and 12, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal, narrow bandwidth detector 208 examines the signal for noise and then transmits downstream a control command to the cable modem to switch to an alternate upstream channel if the noise level exceeds a certain threshold (Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, column 10, line 35-column 12, line 10).

Naegeli does not teach a modem situated within a fibre node.

The examiner takes official notice that it is well known in the art for an administrator at a network operations center to selectively enable and disable links in a network via a modem.

Nazarathy discloses in Figure 20, a Fibre node 452-1 in which modems 456-1 are situated within an HFC network (column 35, line 35-column 36, line 30).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the monitoring and switching apparatus of Naegeli to situate a modem within the fibre node, as taught by Nazarathy thus enabling the end user to utilize a less noisy channel and to selectively enable and disable a link in order to route around a failure on a network.

Regarding claims 8-10, Naegeli discloses in Figure 3 a narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel (column 9, line 56-coumn 14, line 60).

Naegeli's cable modems inherently utilizes ports which are adapted to transmit the informational upstream signal and receive the control signal as Naegeli discloses in figure 2, that cable modem 120 is coupled to the headend 102 via the HFC network.

Regarding claim 13-20, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel. (Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column8, line

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29-column 9, line 26, (column 9, line 56-column 14, line 60). Naegeli's cable modems inherently utilizes ports which are adapted to transmit the informational upstream signal and receive the control signal as Naegeli discloses in figure 2, that cable modem 120 is coupled to the headend 102 via the HFC network.

Naegeli does not teach a modem situated within a fibre node.

The examiner takes official notice that it is well known in the art for an administrator at a network operations center to selectively enable and disable links in a network via a modem.

Nazarathy discloses in Figure 20, a Fibre node 452-1 in which modems 456-1 are situated within an HFC network (column 35, line 35-column 36, line 30).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the monitoring and switching apparatus of Naegeli to situate a modem within the fibre node, as taught by Nazarathy thus enabling the end user to utilize a less noisy channel and to selectively enable and disable a link in order to route around a failure on a network.

Regarding claims 21-27, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel.

(Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, (column 9, line 56-column 14, line 60).

Naegeli does not disclose transmitting a signal to a cable modem to sequentially enable or disable a number of lines or a modem situated within a fibre node.

The examiner takes official notice that it is well known in the art for an administrator at a network operations center to selectively enable and disable links in a network via a modem.

Nazarathy discloses in Figure 20, a Fibre node 452-1 in which modems 456-1 are situated within an HFC network (column 35, line 35-column 36, line 30).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the monitoring and switching apparatus of Naegeli to situate a modem within the fibre node, as taught by Nazarathy thus enabling the end user to utilize a less noisy channel and to selectively enable and disable a link in order to route around a failure on a network.

Regarding claims 28-31, Naegeli discloses in figure 2, a HFC network with a CMTS and headend 202, a cable modem 120 attached to the HFC network transmits an upstream signal narrow bandwidth detector 208 with an FPGA 302 which performs an FFT on the received signal from the cable modem, the noise level from the signal is stored in AM 304 and a comparison is preformed by CPU 206 to see if the upstream signal from the cable modem exceeds a noise threshold, if it does, the CPU informs the CMTS to issue commands to the cable modems to retransmit on a new channel.

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(Figures 5/6, column 3, lines 1-31, column 5, line 61-column 6, line 11, column 8, line 29-column 9, line 26, (column 9, line 56-column 14, line 60).

Naegeli does not disclose transmitting a signal to a cable modem to sequentially enable or disable a number of lines or a modem situated within a fibre node.

The examiner takes official notice that it is well known in the art for an administrator at a network operations center to selectively enable and disable links in a network via a modem.

Nazarathy discloses in Figure 20, a Fibre node 452-1 in which modems 456-1 are situated within an HFC network (column 35, line 35-column 36, line 30).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the monitoring and switching apparatus of Naegeli to situate a modem within the fibre node, as taught by Nazarathy thus enabling the end user to utilize a less noisy channel and to selectively enable and disable a link in order to route around a failure on a network.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,588,016 to Chen: Method and Apparatus for Locating a Faulty Component in a Cable Television System Having Cable Modems.

U.S. Patent 6,166,760 to Kay: Ingress Noise Measuring Device in Data Communication Network Using CATV Network.



U.S. Patent 6,377,782 to Bishop: Method and Apparatus for Communication  
Between a Client Device and a Linear Broadband Network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL



VIVEK SRIVASTAVA  
PRIMARY EXAMINER